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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/224,376 | 12/31/1998 | JOSEPH C. HARVELL | 709000 | 3762 |

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EXAMINER

CHANG, JUNGWON

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2154

DATE MAILED: 04/02/2002

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/224,376

Applicant(s)

HARVELL, JOSEPH C.

Examiner

Jungwon Chang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 9-31 are canceled, claims 32-36 are pending and new claims 37-42 are added for further examination.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. The following terms lack proper antecedent basis:

a. the server – claim 33;

2. The claim language in the following claims is not clearly understood:

- a. as to claim 33, line 2, it is not clearly indicated whether “the server” refers to “a single selected computer” in claim 32, line 2 or “one or more computers” in claim 33, line 3;
- b. as to claim 34, the claim has the same deficiency as claim 33 as set forth in the paragraph above.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 32 and 35-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Lim et al. (US 5,938,732).

5. As to claim 32, Lim et al. disclose the invention ^{J.W.C.} ~~substantially~~ as claimed, including the method for implementing a heartbeat protocol, comprising generating heartbeat message by a single selected computer indicating the availability of resources on one or more computers (col. 3, lines 30-37), such that the loss of a heartbeat from the selected machine is indicative that all computer resources are unavailable (col. 8, lines 23-35), and the presence of a heartbeat from the selected machine is indicative that all computer resources are available (col. 5, lines 66-67; col. 6, lines 1-6).

6. As to claims 35 and 36, Lim et al. disclose generating a message by the selected computer in accordance with the heartbeat protocol to indicate unavailability of the one or more computer resources (col. 8, lines 23-35).

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7. As to claim 37, Lim et al. further disclose determining from the presence or absence of the heartbeat messages that all computer resources are available or unavailable (col. 8, lines 25-28); and providing a response to a message query for the computer resources for which the heartbeat is absent that the computer resources are unavailable (col. 8, lines 26-35).

8. As to claims 38-40, Lim et al. disclose providing additional information associated with the response to the message query concerning the computer resources (col. 5, lines 7-15).

9. As to claim 41, Lim et al. disclose the heartbeat is monitored by a primary master name server for a zone of a communications network comprising the computer resources (col. 6, lines 15-36).

10. As to claim 42, Lim et al. disclose the heartbeat is generated by at least one computer within a domain name zone (col. 7, lines 24-37).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lim et al. (US 5,938,732), as applied to claims 32 and 35-42 above, in view of Feit (US 6,178,439 B1).

13. Feit was cited in the prior office action (papers # 8).

14. As to claims 33 and 34, Lim et al. do not specifically disclose requesting a new heartbeat rate; and server imposing at any time a minimum heartbeat period on the selected computer.

15. However, Feit discloses the single selected computer requesting a new heartbeat rate, and upon agreement by the server to the new heartbeat, implementing the new heartbeat rate (col. 6, lines 44-67; col. 7, lines 55-65; col. 8, lines 7-9); and server imposing at any time a minimum heartbeat period on the selected computer (col. 7, lines 59-65).

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Lim et al. and Feit because Feit's requesting and implementing the heartbeat rate would improve the performance of Lim

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et al's system by flexibly changing heartbeat rates, thereby server would request heartbeats more frequently to determine the availability of resources on computers.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:


Zalewski et al., patent 6,260,068 B1, Westwick et al., patent 5,828,836, Gregerson et al., patent 5,778,185, Purcell et al., patent 6,246,666 disclose implementing and generating heartbeat message.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jungwon Chang whose telephone number is (703)305-9669. The examiner can normally be reached on 9:00-5:30 (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (703)308-9052. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-7239 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Jungwon Chang
March 28, 2002


ZARNI MAUNG
PRIMARY EXAMINER